CORE

The Voice of Mineral Exploration/Winter 2016

PDAC 2016 CONVENTION NEWS AND HIGHLIGHTS

CELEBRATING OUR BEST: PDAC AWARD RECIPIENTS

UNLOCKING NORTHERN RESOURCE POTENTIAL

METC: Mistakes, myths and misconceptions

PDAC
PROSPECTORS & DEVELOPERS ASSOCIATION OF CANADA

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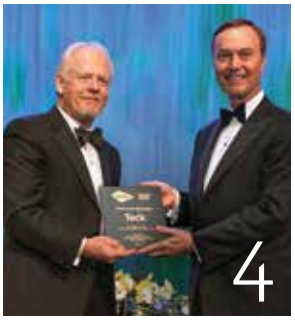
CORE
The Voice of Mineral Exploration
Winter 2016



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INDUSTRYNEWS

CAPITAL MARKETS REGULATORY AUTHORITY

The Ministers responsible for capital markets regulation in the jurisdictions participating in the Capital Markets Regulatory Authority—British Columbia, Ontario, Saskatchewan, New Brunswick, Prince Edward Island and Yukon—announced the publication for comment of a revised consultation draft of the uniform provincial/territorial Capital Markets Act (CMA). The CMA and the regulations would together constitute the single set of provincial/territorial laws under the **Cooperative Capital Markets Regulatory System (Cooperative System)**. The PDAC made a submission during the comment period for the revised consultation draft legislation and draft initial regulations.

FIRST ENGAGEMENT: A GUIDE FOR EXPLORERS

PDAC released a new resource for field workers in September entitled *First Engagement: A Field Guide for Explorers*. This practical and straightforward resource aims to support mineral exploration companies, and their field based employees, in building strong and positive company-community relationships at the site level. The guide can be used by geologists and project managers working at the site level of a new mineral exploration project, or on an existing project that is new to a company, to improve a company's ability to engage in dialogue and interaction with surrounding stakeholders.

Trans-Pacific Partnership (TPP)

Negotiations on the Trans-Pacific Partnership (TPP) trade agreement concluded in September. Canada has tentatively agreed to join **11 other countries** in seeking to create a free-trade zone around the Pacific region, making it the world's largest as the participating countries account for **40 per cent** of the world's economic output.

Liberal Party of Canada wins majority government

The Liberal Party of Canada won the federal election on October 19 with a majority government and Justin Trudeau became **Canada's 23rd Prime Minister.** Newly-elected MPs were sworn into office on November 4 and new Cabinet Ministers are announced. The Honourable Jim Carr, MP for Winnipeg South Centre, is appointed Minister of Natural Resources and will provide leadership over issues impacting Canada's minerals and mining industry.

Libéral

ICMM RELEASES UPDATED *INDIGENOUS PEOPLES AND MINING GOOD PRACTICES GUIDE*

The International Council on Mining & Metals (ICMM) published an updated *Indigenous Peoples and Mining Good Practices Guide* in October to help mining companies build mutually-beneficial relationships with Indigenous Peoples. The guide outlines the principles for good engagement in order to foster respect for the rights, interests, aspirations, cultures and livelihoods of Indigenous Peoples. In December, ICMM also released *Demonstrating Value*, a responsible sourcing guide, along with an *Understanding Company-Community Relations Toolkit*.

C.D. HOWE REPORT: MODERN TREATIES BENEFIT FIRST NATIONS, MINING COMPANIES

According to a report released by the C.D. Howe Institute in October entitled *The Effect of First Nations Modern Treaties on Local Income*, modern treaties signed in Canada since the 1970s have greatly benefited First Nations and mining companies as they have boosted the average annual income of communities and led to the responsible development of natural resources.

DETECTING CANCERS WITH DIAMONDS

A team of physicists at the University of Sydney announced in November that they have devised a method that uses **nanoscale, synthetic diamonds to detect cancers** before they become life-threatening. The findings, published in the journal *Nature Communications*, reveal how synthetic diamonds light up inside a Magnetic Resonance Imaging (MRI) machine, acting as a beacon for early-stage cancers. The manipulated diamonds are then attached to specific chemicals that are known to target cancers, then injected into the body and tracked as they make their way through the patient's system. When cancer is present, the chemicals become attracted to the site and the diamonds provide a "lighthouse" on the MRI scan.

Exemptions to improve access to capital

Securities regulators in Ontario, Quebec, Manitoba, Saskatchewan, New Brunswick and Nova Scotia introduced an equity crowdfunding exemption in November to be in place by early 2016. Additionally, the Ontario Securities Commission will allow companies to use an Offering Memorandum exemption, an alternative to a full prospectus. PDAC has been advocating for these exemptions to provide alternative capital raising methods for junior mineral exploration companies.

ONTARIO RENEWS MINERAL DEVELOPMENT STRATEGY

The province released a renewed Mineral Development Strategy in December that provides a 10-year plan to position Ontario as the global leader in sustainable mineral development. The strategy consists of a 10-point action plan with four strategic priorities to ensure the sector is:

1. Competitive and innovative
2. Safe and environmentally responsible
3. Efficiently and effectively regulated
4. Positioned to ensure growth and prosperity for future generations

Shortly before the end of the year, SNL Metals & Mining released their 26th edition of the Corporate Exploration Strategies (CES). Their survey of 1,789 companies estimated that the worldwide total budget for nonferrous metals exploration in 2015 totalled $8.77 billion ($10.74 billion in 2014). Grassroots exploration accounted for only 29 per cent of expenditures at $2.55 billion (an 11-year low).

PDAC 2016 AWAR

The PDAC Board of Directors is pleased to announce the following award recipients for their outstanding contributions to the mineral exploration and mining industry.

The recipients will receive their awards at the PDAC 2016 Convention on March 7 at the Fairmont Royal York in Toronto.

SPECIAL ACHIEVEMENT AWARD

From time to time, the PDAC presents a Special Achievement Award that recognizes exceptional contributions to the mineral industry.

THE BJORKMAN FAMILY

For their multi-generational dedication to geology, prospecting and diversity.

Bjorkman Prospecting is a long-standing Ontario-based prospecting company that has worked in locations all across Canada as well as internationally. Encouraged by his father, Karl Bjorkman started prospecting around 1990 and saw his business grow to include claim staking, exploration project management and technical support. His five daughters, Jessica, Katrina, Ruth, Veronique and Karla, along with one son named Bjorn, inherited his passion for finding gold, making it the third generation to work in the industry. Wife and mother Nikki, keeps the books.

In their time, the Bjorkmans have covered significant ground. They have staked approximately 700,000 hectares, or 1.8 million acres of land. That's approximately 16,000 to 19,000 km and 40,000 to 50,000 claim posts. The Bjorkmans have an extensive archive of prospecting information, and in partnership with other Thunder Bay area entrepreneurs, they stake ground in anticipation of finding a senior partner to fund further and more extensive exploration.

The Bjorkman sisters are credited for encouraging other women into a predominantly male dominated industry. Female prospectors are rare, let alone five sisters who feel more at home prospecting than they do in the city.

Their influence reaches further than gender. As volunteers with the charitable organization PDAC Mining Matters, they have contributed to Mining Rocks Earth Science Camps sharing their knowledge and passion for prospecting and geology with Aboriginal youth in northern Ontario communities.

THAYER LINDSLEY AWARD

This award recognizes an individual or a team of explorationists credited with a recent significant mineral discovery anywhere in the world.

CUKARU PEKI DISCOVERY TEAM

For the team's discovery of high-grade copper-gold deposits in Serbia which may prompt explorers to look for a new class of mineral deposit.

In July 2012, a joint venture of subsidiaries of Reservoir Minerals Inc. and Freeport-McMoRan Inc. announced the discovery of what became known as the Cukaru Peki copper-gold deposit in the heart of Serbia's Bor mining camp, which has been operating for more than 100 years.

In January 2014, Reservoir reported inferred resources at Cukaru Peki, compliant with NI 43-101, of 65.3 million tonnes grading 2.6% copper and 1.5 g/t gold. This included 4.5 million tonnes grading 11.2% copper and 7.4 g/t of gold. Some observers speculate that the deposit could contain over a billion tonnes of mineralization grading over 1.2% copper equivalent.

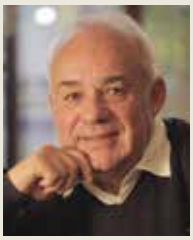
Traditional down-hole geophysics did not work at Cukaru Peki because the mineralization was too rich to respond as expected. The mineralization is dominated by bornite (63% copper), chalcocite (80% copper) and covellite (50% copper). All of these minerals appear to be primary. For comparison, most of the world's primary copper mineralization occurs as chalcopyrite (34.5% copper).

The mineralization at Cukaru Peki does not fit well with porphyry copper, VMS, or epithermal models. Its discovery may prompt explorers to search for a new class of mineral deposit.

Cukaru Peki is exceptional because it was a blind discovery in an established mining camp—it is large, of high-grade and could result in the establishment of a new geological model, providing targets for future explorers to seek.

RESERVOIR MINERALS

FREEPORT-MCMORAN



BILL DENNIS AWARD

This award, named for a former president of the association, honours individuals who have accomplished one or both of the following: made a significant mineral discovery; made an important contribution to the prospecting and/or exploration industry.

BRUCE CHANNEL DISCOVERY TEAM

For the discovery of gold at Bruce Channel in the Red Lake gold camp, Ontario.

Robert Cudney, Stephen Roman and John Whitton (left to right, above) receive this award for their Bruce Channel discovery in the heart of the well-explored Red Lake gold camp in northwestern Ontario. It was discovered by Exall Resources Limited, which later became Gold Eagle Mines Ltd. after merging with Southern Star Resources Inc. In May 2007, an internal estimate of the deposit size was 14.1 to 16.5 million tonnes of mineralized rock at a grade of roughly 20-25 grams per tonne of gold for a total of between 9 and 13.3 million ounces of gold. The impressive discovery was located in the middle of Ontario's third largest precious metals camp, with almost all of the required transportation and power infrastructure at its doorstep.

An exploration program began, including a hole drilled vertically from the ice in the middle of the Bruce Channel in the winter of 2004—the first indication of a new deeper gold deposit. The main discovery hole was completed in August 2005, indicating a potentially high-grade gold deposit. To allow year-round drilling, it was moved to the north and south shores, with drill holes longer than 2,000 meters and as many as 15 wedges off each hole. These technical challenges created a story of their own.

In June 2006, the *Northern Miner* profiled the project and highlighted the geological complexity of the Bruce Channel discovery. It wrote that the deposits around the Bruce Channel are probably the most structurally complex in the Red Lake camp, sitting, as they do, at the junction of three deformation zones—one trending westward, another northeast, and the third southeast.

This discovery was given the "Discovery of the Year Award" by the Ontario Northwestern Prospectors Association in 2008, the same year that Gold Eagle Mines was taken over by Goldcorp Inc. for $1.5 billion.

VIOLA R. MACMILLAN AWARD

This award, which is named in honour of the PDAC's longest serving president, is given to an individual or organization demonstrating leadership in management and financing for the exploration and development of mineral resources.

SILVER WHEATON CORP.

For developing new and innovative business strategies that are a leading example for other companies and junior miners to follow.

Chap Mercantile changed its name to Silver Wheaton Corporation in July 2004, becoming a new and innovative type of publicly-traded company within the mining industry. Silver Wheaton's business strategy portrays characteristics of a metal producer, a royalty owner, and has features of a corporate finance group. This structure allows Silver Wheaton direct ownership of metal in the ground, receipt of that metal upon production, and the ability to sell it to generate cash flow, all the while minimizing corporate overhead costs and maintaining a streamlined management structure. Similar companies have since started to follow this example.

Because their business model acquires metal in advance of production, using funds often designated to finance capital projects like mine construction, the market looked at the business mechanism employed by Silver Wheaton as a new type of project or corporate financing instrument.

Since 2004, Silver Wheaton has built a strong brand and set an example of how to make their business strategy one of the preferred methods for the junior sector to finance a mine. Creating a metal production stream has provided funds to under-capitalized companies while minimizing shareholder dilution, an important factor in times when share price is depressed due to market conditions. Corporate executives and their financial advisors recognized this feature. As a result, the company grew quite rapidly and, by the end of 2005, Silver Wheaton looked to produce and sell more than 9.5 million ounces of silver and by the end of 2006, the number would grow to over 10 million ounces.

Silver Wheaton is now positioned as the largest precious metal streaming company in the world.

SILVER
WHEATON

DISTINGUISHED SERVICE AWARD

This award recognizes an individual who has achieved one or more of the following: made a substantial contribution to mineral exploration and mining development over a number of years; given considerable time and effort to the PDAC; made outstanding contributions to the mineral industry in the field of finance, geology, geophysics, geochemistry research, or a related activity.

PATRICIA SHEAHAN

For her unique and outstanding contribution and dedication to Canada's minerals industry.

Patricia Sheahan, or Pat as she is better known, has a long and unique career in the minerals industry. As a leader and entrepreneur, she founded a worldwide technical information service for exploration companies focused on diamonds, base and precious metals. The subscription service, which began in 1972, has been indispensable for those in the field looking to make the next diamond discovery.

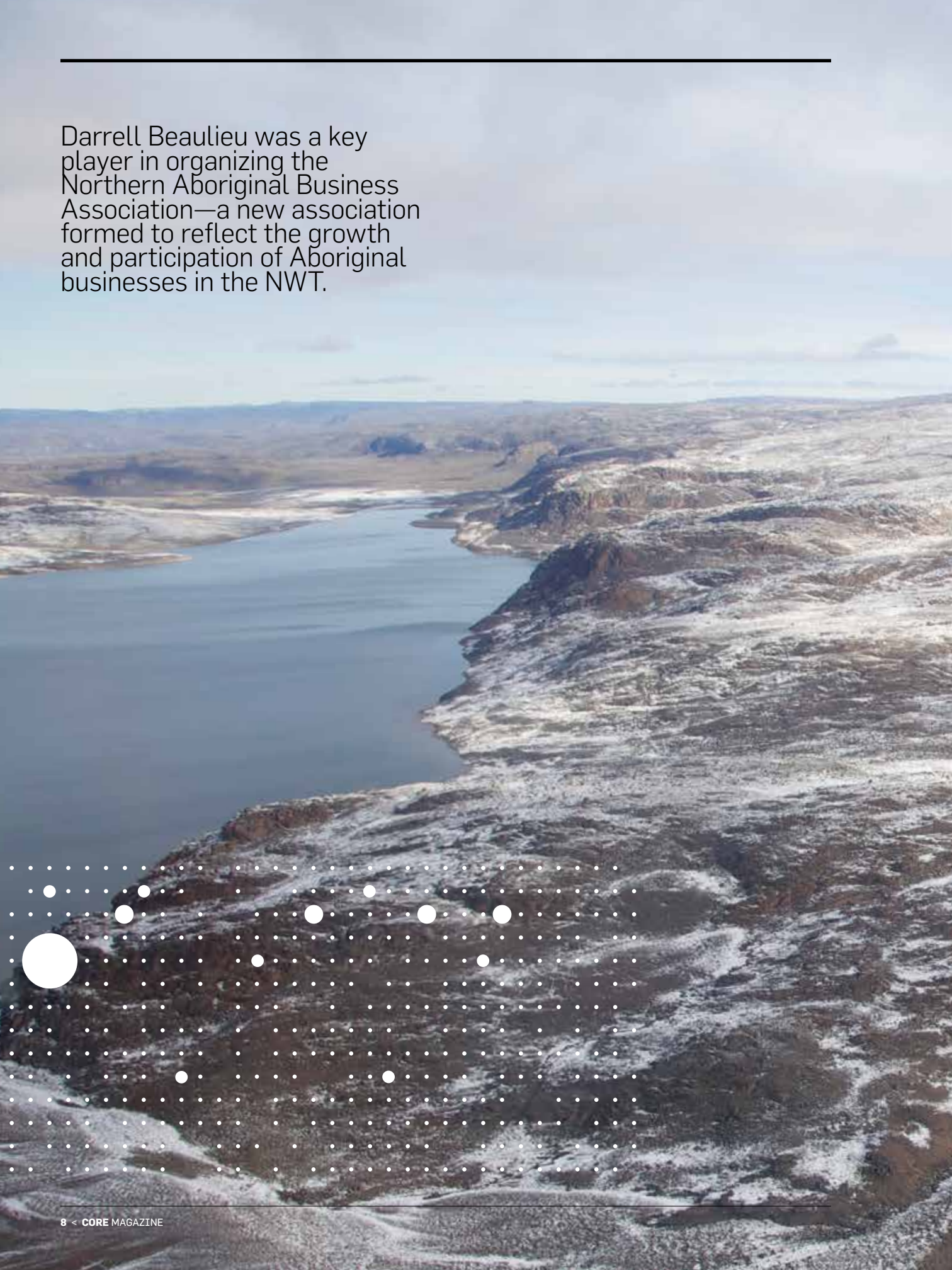
In 1972, Sheahan started her own consulting firm that provided a flow of information about the diamond boom in Canada, which ultimately paved the way for junior mining companies to enter the industry. By 1993, she had organized the PDAC Convention's first short course on diamonds that attracted more than 400 people. Diamonds have since become a popular annual session at the PDAC Convention.

Sheahan has been a Director of seven junior companies, including ones that put into production the River Ranch diamond mine in Zimbabwe, Holloway gold mine in Ontario, Jericho diamond mine in Nunavut, and Kelsey Lake diamond mine in Colorado. She has served as Chairman on various committees, written five books, and contributed peer reviewed papers and articles.

Sheahan has strong ties to the PDAC. She has volunteered as a Director for 14 years, been a long-standing member on the Convention Planning Committee, served as Chair of the Communications Committee, and is a member of the Public Affairs Committee. A big believer in volunteering, she has edited and/or indexed conference publications, a thesaurus of geological terms published by the American Geosciences Institute, association newsletters and more.

The extensive library of technical materials and references collected by Sheahan, around 70,000, was donated to the University of British Columbia Mineral Deposit Research Unit in 1999.

Darrell Beaulieu was a key player in organizing the Northern Aboriginal Business Association—a new association formed to reflect the growth and participation of Aboriginal businesses in the NWT.



SKOOKUM JIM AWARD

Recipients of this award have demonstrated exceptional achievement and/or service in a Canadian Aboriginal-run service business for the Canadian mining industry or a Canadian Aboriginal exploration or mining company, or have made a significant individual contribution to the mining industry.

DARRELL BEAULIEU
For his innovation, hard work and dedication to the minerals industry in his community.

Darrell Beaulieu is a leader and highly-respected member of his community who served three terms as Chief of the Yellowknives Dene First Nation. His work in the mineral industry began early in exploration, staking mineral claims and working on a number of exploration projects in the Northwest Territories (NWT).

Beaulieu has a keen mind for business and became the first President of Det'on Cho Corporation, the business arm of the Yellowknives Dene First Nation. He was instrumental in the growth of the corporation, providing business support to the growing NWT diamond mining industry. He served on the Board of Directors for both the NWT Mine Training Society and the NWT & Nunavut Chamber of Mines. In 2005, he assumed the role of President and CEO of Denendeh Investments Incorporated, a Dene corporation established to create long-term economic self-sufficiency for the Dene through profitable business ventures. Denendeh Investments has been focusing its efforts on a diverse business portfolio including real estate, oil and gas exploration, communications and power delivery.

Darrell Beaulieu was a key player in organizing the Northern Aboriginal Business Association—a new association formed to reflect the growth and participation of Aboriginal businesses in the NWT. He built the foundations for a new mineral industry enterprise, a 100%-owned Aboriginal exploration and mining company. Denendeh Exploration and Mining Company—officially shortened to DEMCo—was launched in 2013. c

Lucara Diamond

ENVIRONMENTAL & SOCIAL RESPONSIBILITY AWARD

This award honours an individual or organization demonstrating outstanding initiative, leadership and accomplishment in protecting and preserving the natural environment and/or in establishing good community relations during an exploration program or operation of a mine.

LUCARA DIAMOND CORP.
For its stakeholder initiatives, community engagement and focus on sustainable practices and long-term benefits at their Karowe mine in Botswana.

Lucara Diamond Corp. has committed to responsible development of its assets and operations, and has structured itself with long-term success in mind. It began publishing Global Reporting Initiative compliant sustainability reports in 2012 to ensure its performance was documented and communicated transparently to stakeholders.

The diamond producer has two principal assets: the Karowe mine in Botswana, which recently discovered the second largest diamond on record, and the Mothae project in Lesotho. Soon after acquiring the deposit in Botswana in 2010, Lucara Diamond embarked upon an intensive stakeholder mapping and engagement exercise to ensure community members had a voice in each phase of asset development. Feedback was instrumental in the decision to house its employees in the community, rather than behind fences on site, the design of local hiring and procurement processes, and even the naming of the mine which emerged from a local school competition.

The workforce at Karowe is comprised of 96 per cent Botswana nationals. Lucara Diamond aims to continue building strong ties with local communities and government authorities to strengthen and expand its innovative partnerships for a positive and lasting legacy. Lucara Diamond entered into a voluntary agreement to contribute a percentage of its annual revenue to the Lundin Foundation, a philanthropic organization supported by a number of publicly-traded natural resource companies committed to the highest standards of corporate responsibility.

From the perspective of the Karowe community, Lucara Diamond's multi-faceted, nuanced approach to responsible mining has made a lasting contribution to improving quality of life, creating economic opportunities and contributing to sustainable development.

PDAC 2016 CONVENTION

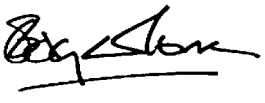
MESSAGE FROM THE PRESIDENT

The PDAC Convention is fast approaching and I'm proud to share with you some of the highlights for 2016. Despite trying conditions across the mineral exploration and development sector, more than 23,500 attendees from 116 countries attended in 2015. This continues to make our annual show the leading industry event in the world, and a networking and collaboration opportunity not to be missed.

It's an exciting time for the PDAC 2016 Convention. Trade Show North returns for the second year. We welcome back the Capital Markets, Keynote Session, Corporate Social Responsibility Event Series, Technical and Aboriginal Programs, as well as the Core Shack that will once again showcase discoveries from around the world, to name a few.

The PDAC 2016 Convention proudly marks 84 years of successfully bringing together the world's mineral exploration and mining community to discuss the latest trends, technologies and challenges shaping the industry. I'd like to thank the ongoing loyalty of our sponsors, returning exhibitors and attendees, and welcome those who are joining us for the first time.

Visit our convention website for the latest news and information (www.pdac.ca/convention). I look forward to seeing you at PDAC 2016!



Rod Thomas
PDAC President

PDAC 2016 →

ATTEND PDAC 2016 AND MEET WITH NEARLY 900 EXHIBITORS!

Come face-to-face and discuss investment potential with exploration companies, major mining companies, mid-sized producers, and financial institutions in the **Investors Exchange**.

Network with **Trade Show & Trade Show North** exhibitors and learn about technology, products, services and mining jurisdictions. Also, check out **Mining Marketplace**, a feature area located inside the Investors Exchange, where Trade Show-eligible companies will exhibit.

Get back to the heart of the industry with a visit to the **Prospectors Tent**. Located in the Investors Exchange, self-employed and independent prospectors will be there to discuss their maps, samples and claim results with attendees.

Attendees can get up close and personal with projects that are generating exciting new drilling results in the **Core Shack**. In addition, exhibitors will be displaying maps, charts and technical information on their drilling projects to interested attendees. **NEW FOR 2016:** Core Shack, sponsored by Barrick Gold Corporation, will be located in the Investors Exchange!

For exhibitor lists, visit **www.pdac.ca/convention**

SHOW HOURS

Sunday, March 6	9:00 am – 5:00 pm
Monday, March 7	9:00 am – 5:00 pm
Tuesday, March 8	9:00 am – 5:00 pm
Wednesday, March 9	9:00 am – 12 noon

Complimentary Access to Trade Show North
Attendees can visit the Trade Show North with all pass types.

EXHIBIT AREA FEATURES

Tesla Model S Exhibit
Investors Exchange
While touring the Investors Exchange, check out the **Tesla Model S** electric car! See how many mined products are used in these environmentally-friendly cars.

Stop by and meet Gianni Kovacevic, author of *My Electrician Drives a Porsche?* Gianni will start his Realistic Environmentalist North America Tesla Tour at PDAC 2016. He will drive his Tesla from Toronto all the way to Tesla headquarters in Palo Alto, California. For more tour information visit **www.kovacevic.com**

The Kirwin Collection, Royal Ontario Museum
Trade Show North
PDAC is pleased to showcase the Kirwin Collection display, sponsored by FTI Consulting. This assortment was built from hundreds of deposits and localities around the world, and is truly a geological library. The Kirwin Collection was built to create a resource that would be of value in teaching both the fundamentals and the finer points of the geological processes that form the mineral deposits on which we depend.

Great North Eatery and **The Beer Market**
Trade Show North
Satiate your hunger and grab a drink at the Great North Eatery and The Beer Market sponsored by Deloitte. The casual atmosphere of the Eatery is a destination of choice for attendees looking for a place to eat, relax, unwind and network in a social setting. The Beer Market, adjacent to the Eatery, is perfect for informal meetings, mingling and networking.

BECOME AN EXHIBITOR AT PDAC 2016!

Investors Exchange
The Investors Exchange is a great opportunity for junior exploration companies, major mining companies, mid-sized producers, stock exchanges, and financial institutions to network with individual investors and seek out new business opportunities. For more information and to become an Investors Exchange Exhibitor, visit **www.pdac.ca/convention/exhibit-presentation-opportunities/investors-exchange**

Mining Marketplace
For the second year, PDAC is offering Trade Show-eligible companies an opportunity to apply for exhibit space in a feature area located in the Investors Exchange. For more information and to become a Mining Marketplace Exhibitor, visit **www.pdac.ca/convention/exhibit-presentation-opportunities/mining-marketplace**

NETWORKING EVENTS

SUNDAY, MARCH 6

Welcome Reception 4:00 – 6:00 pm **NEW TIME**, Trade Show North, North Building, Level 300

PDAC welcomes you to the largest networking event at the convention. Enjoy a complimentary drink and snacks as you spend quality time with exhibitors and colleagues. Complimentary drink ticket in the All Access Pass registration bag. Cash bars available. *Admission ONLY with convention pass. Open to all pass types.*

MONDAY, MARCH 7

Mineral Outlook Luncheon 12 noon – 2:00 pm, South Building, Level 700

Tickets: $80 (inclusive)

Commodities await their date with destiny

PDAC welcomes Don Coxe, Chairman, Coxe Advisors LLC., Chicago, USA, who will discuss the status of the mining industry—in Canada and globally—now and three years from now. Don believes companies should be planning this year to position themselves for the onset of inflation, which will raise mineral prices, companies' stock prices, and the costs of capital.

Don Coxe

Trade Show Reception 3:00 – 5:00 pm, Trade Show North, North Building, Level 300

Enjoy a glass of wine or beer as you network with attendees and Trade Show North exhibitors. Complimentary drink ticket in the All Access Pass registration bag and with your Trade Show attendee pass. Cash bars available. *Admission ONLY with convention pass. Open to all pass types.*

Awards Evening Fairmont Royal York, Canadian Room

Outstanding achievements are honoured at the prestigious annual PDAC Awards Evening, where individuals and organizations are acknowledged for their significant contributions to the Canadian mineral industry. This hallmark event features pre and post receptions, a delectable three-course dinner, fine wine and live jazz music.

Engaging videos, showcasing the stories and underscoring the accomplishments of each award recipient highlight this memorable evening.

6:00 – 7:00 pm	Reception
7:00 – 8:30 pm	Dinner
8:30 – 9:45 pm	Award Presentations
9:45 – 11:00 pm	Reception

PROUD SPONSORS

Awards Evening

Franco Nevada

The GOLD Investment that WORKS

Dinner Wine

CIBC

Receptions

OCEANAGOLD

Dress: Business Attire, Black Tie Optional

Tickets: $125 each (inclusive) **Table of 10:** $1,125 **SAVE $125!** (inclusive)

TUESDAY, MARCH 8

Panel Luncheon 12 noon – 2:00 pm, South Building, Level 700

Tickets: $80 each (inclusive)

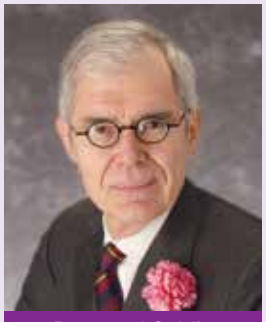
What will fuel the next bull market in mined commodities?

Which major sectors of the macro-economy are likely to initiate new growth in the metals market? Which metals will be needed to meet increased consumption? Will future growth in developing economies lead to increased total world consumption of metals and minerals? Join us for this lively panel discussion.

Moderator: Raymond Goldie, Independent Analyst and Director, Toronto, Canada

Panelists:

- Frank Holmes, CEO and Chief Investment Officer, U.S. Global Investors, San Antonio, USA
- Gianni Kovacevic, Executive Chairman, CopperBank and Author of *My Electrician Drives a Porsche?*, Vancouver, Canada
- John C. Tumazos, CFA, John Tumazos Very Independent Research, LLC, Holmdel, USA



Raymond Goldie

Student-Industry Networking Luncheon 11:30 am – 1:30 pm
North Building, Level 100
The flagship event of the student program, this reception-style buffet luncheon provides an opportunity to make valuable connections with industry professionals and peers. The winner of the Mary-Claire Ward Geoscience Award will be announced, as well as the selected 2016 Student-Industry Mineral Exploration Workshop (S-IMEW) students. There will be a random draw for five $300 tuition top-up awards. Proof of student membership is required to claim the award.
RSVP when you register for the convention.

Hecla Mining Night 9:00 pm – 12 midnight
Fairmont Royal York, Canadian Room
Come and network with 3,000 of your closest industry friends! The Dave Murphy Band will perform your favourite cover tunes while you hit the dance floor. Pick up your two free draft beer tickets at the door. *Admission ONLY with convention pass. Open to all pass types.*

WEDNESDAY, MARCH 9
Closing Party: PROM NIGHT (formerly Gala)
Fairmont Royal York, Canadian Room

Dust off your cummerbunds, bowties and satin dresses and tease up your hair for a prom night throwback!

Feel the nostalgia as you do the electric slide, twist, jive, and groove the night away while dressed in your finest prom duds from your favourite year.

Find the perfect item at the **Silent Auction** and enjoy a delectable decade-themed dinner.

Dream big in the **Casino** and capture the memory of this special evening in our **Photo Booth**.

To crown the night off, cash prizes for the best dressed **Prom King and Queen**!

6:00 – 7:00 pm	**7:00 – 8:30 pm**	**9:00 – 10:30 pm**
Host Bar Reception	Dinner (including wine)	Casino
6:00 – 9:45 pm	**8:30 – 12 midnight**	**Midnight**
Silent Auction	Live Band and Dancing	Curfew

Tickets: $125 **Table of 10:** $1,125 **SAVE $125!**
(includes reception, dinner, wine, live band and dancing, photo booth, casino, prizes, tax/gratuities)

Reception and Evening sponsored by

IBK Capital Corp.

To register for the PDAC 2016 Convention and/or to purchase tickets, visit www.pdac.ca/convention/attendee-info/registration

PROGRAMMING

Technical Program
There are 18 Technical Sessions designed to promote next and best practices. Attendees will hear industry experts share timely insights during this dynamic series of presentations.

The Technical Program will begin on Sunday afternoon, March 6. On Monday morning, March 7, the Opening Ceremonies will feature remarks from PDAC President Rod Thomas, the Honourable James Carr, Minister of Natural Resources, and Regional Chief Shane Gottfriedson, British Columbia Assembly of First Nations.

The Technical Program will feature the following sessions:

SUNDAY, MARCH 6
- Commodities and market outlook
- Treasures of the Western and Central Tethys Metallogenic belt

MONDAY, MARCH 7
- Opening Ceremonies
- Keynote session: 2026–the future of exploration and development
- Energy strategies, efficiencies: What is the right mix for your project?
- Super-giant porphyry Cu-Au deposits: Important global resources for the future
- Nevada gold deposits
- Diamonds in southern Africa: Back to the beginning
- Coal? Yes, coal!

TUESDAY, MARCH 8
- What do mining analysts think about your company?
- Mining and integrated water management
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The Duty to Consult and mineral exploration—complexities across Canada

BY LESLEY WILLIAMS

In September 2015, the PDAC convened 10 regional industry associations from across Canada to discuss a key priority for the mineral exploration industry—the Duty to Consult. The purpose of the gathering was to provide an opportunity for participants to share information, discuss the strengths and weaknesses of the consultation framework in their region, and exchange ideas to continue to support their members and help inform advocacy efforts on this issue.

Many industry practitioners are familiar with the principles of the Duty to Consult, an obligation of the Crown established in the 2004 *Haida Nation v. British Columbia* decision by the Supreme Court of Canada (SCC) with further guidance provided in subsequent case law. It is generally understood that: the Crown is ultimately responsible for consulting with Aboriginal communities; the Duty to Consult requires an understanding of the nature of Aboriginal and treaty rights at stake, as well as an assessment of the degree of impact a Crown decision will have on those rights; and, the procedural aspects of consultation can be delegated to proponents. Furthermore, where potential impacts are identified, the consultation process should determine the appropriate accommodation measures.

The *Haida* decision also encouraged the development of regulatory schemes by provincial and territorial governments that would help guide consultation. In response, most jurisdictions have produced public consultation policies, frameworks and/or guidelines to govern consultation processes. There are some general elements that are common to all jurisdictions, including: objectives and legal framework; expectations for proponent engagement to share project-related information and discuss impacts; identification of accommodation measures; and, participation by Aboriginal communities.

The invitation by the court to develop consultation frameworks has led to a patchwork of jurisdiction-specific consultation policies and guidelines that vary in a number of ways in terms of their content and application. Some of the main differences include: the nature and extent of the Crown's involvement in the consultation process and, by extension, the responsibility placed on proponents; timelines for consultation; and the responsibility for financial costs associated with consultation and accommodation.

While policy and practice differ across jurisdictions, PDAC outreach efforts have identified the following common areas of concern related to Crown consultation processes.

THE DETERMINATION OF THE TRIGGER, SCOPE AND NATURE OF CONSULTATION

Many jurisdictions in Canada lack a clear, transparent (public), systematic consultation framework—a graduated approach to consultation that incorporates an objective, consistent, proportional and transparent assessment of the potential for exploration activities to infringe Aboriginal or treaty rights, and which identifies the accommodation measures necessary to avoid or mitigate such infringement.

This can lead to disproportionate consultation for exploration activities, or consultation that expands beyond the focus on rights and potential impacts to rights. The consultation policies of Saskatchewan and Alberta, on the other hand, make explicit references to the Crown's role in conducting assessments to help determine whether consultation is required, and if so, the scope of consultation required.

IDENTIFICATION OF POTENTIALLY IMPACTED COMMUNITIES

The identification of communities that might be impacted by a mineral project generates a number of challenges. The identification of potentially impacted communities for Crown consultation and community engagement is often too broad, inconsistent between different levels of government, too fluid (numerous changes can occur mid-project), and is not transparently, if at all, linked to the nature of asserted rights. These issues have implications for project timelines, costs, shared territories and a flawed consultation process. Given its relationship with Aboriginal Peoples and knowledge of Aboriginal rights, the Crown is best positioned to assess which communities are to be consulted.

ROLES AND RESPONSIBILITIES—DELEGATION TO PROPONENTS

In a number of jurisdictions the responsibility for, and various parties' roles in, formal consultation (as outlined by the SCC) is ambiguous, uncertain and/or inconsistent. Courts have indicated that proponents can be delegated "procedural" aspects of consultation, but it is unclear as to what this entails. In Ontario, as well as Newfoundland and Labrador, it can be argued that proponents are being delegated substantive elements of the duty to consult, in some cases with little support on key elements of the consultation process such as strength of claim analysis and costs. In jurisdictions where

the Crown has indicated that it will undertake formal consultation, the Crown is often not adequately resourced to do so and proponents are unsure of their role, if any, in the process. British Columbia and Manitoba have indicated that the Crown will not delegate consultation but will outline expectations for a separate community engagement process for proponents. This can contribute to the conflation of legal Crown consultation and voluntary, proponent-led community-engagement activities as it is often unclear how the two processes are distinct. The absence of a publicly-available policy in Yukon contributes to the ambiguity of consultation and confusion for proponents operating in the region.

RESPONSIBILITY FOR THE COSTS OF CONSULTATION

The duration and frequency of consultation can be quite costly and onerous, particularly for junior exploration companies. The question of "who pays" for consultation is frequently raised across Canada, particularly as there is no existing case law that indicates whether the Crown or proponents are responsible for these costs. Ontario's consultation policy places the responsibility on proponents to fund consultation efforts with Aboriginal communities; there are similar expectations in the Northwest Territories. In British Columbia, where consultation is not delegated yet engagement by proponents is encouraged, it is noted that the Crown will fund Crown consultation and that proponents are responsible for engagement-related costs.

ADHERING TO TIMELINES FOR CONSULTATION AND DECISION-MAKING

Most jurisdictions have included in their policies or regulatory frameworks timelines for consultation activities (such as notification, Aboriginal community responses, and Crown decisions), as well as certain flexibility to allow for further consultation, if deemed necessary. The Northwest Territories, Manitoba and Ontario, for instance, have mechanisms whereby the clock can be stopped and the permitting process put on hold. While it is understood that consultation is a process and that the extent of consultation may change should new or additional information arise, there is an apparent lack of transparency or clarity with regards to what stops the clock, how the decision is made and by whom, and if it is applied consistently. Clear, predictable and consistent timelines are critical for exploration and development projects.

ASSESSING THE ADEQUACY OF CONSULTATION

It is often unclear to proponents when and how consultation is deemed adequate. The factors considered by the Crown when determining consultation adequacy—whether it is carried out by the Crown or delegated to proponents—are not made explicit in jurisdiction-specific consultation policies and guidelines. In instances where the proponent has been delegated a bulk of the consultation activities, it is especially difficult to achieve a level of certainty or predictability for an exploration project as the question of adequacy is discretionary, open to interpretation by the Crown and legal challenges. There is also a risk that, in the absence of transparent criteria for determining consultation adequacy, commercial agreements between companies and communities are being used by the Crown as a benchmark for consultation adequacy (rather than the consultation record of the Crown and/or proponent).

ACCOMMODATION AMBIGUITY AND THE BLURRING OF ACCOMMODATION MEASURES LINKED TO IMPACTS ON RIGHTS AND COMMERCIAL, COMPANY-COMMUNITY AGREEMENTS

The definition and practice of accommodating impacts to Aboriginal and treaty rights is ambiguous in jurisdictions across Canada, particularly in relation to mineral exploration projects. There is a lack of guidance for accommodation as it pertains to establishing when it is required, who is responsible, and what form is adequate (e.g. mitigation vs. compensation). Linked to this ambiguity is the increasing lack of distinction between formal accommodation measures (resulting from consultation) and commercial, company-community agreements (resulting from engagement). In Ontario's consultation policy, for instance, companies are encouraged to reach arrangements with Aboriginal communities whereas Newfoundland and Labrador's policy explicitly states that proponents are responsible for any financial accommodation related to the infringement of rights. Conversely, as Saskatchewan does not delegate consultation, it distinguishes between socio-economic agreements and accommodation.

Despite efforts by provincial and territorial governments to delineate consultation processes and, in some cases, provide guidance for proponents on their role in consultation and engagement, challenges exist in practice. This results in delayed projects, increased costs, investor uncertainty and negative impacts to company and community relationships. c

Lesley Williams is the PDAC's Senior Manager of Aboriginal Affairs.

Despite the complexities related to the Duty to Consult, proponents across Canada continue to make efforts to manoeuvre the challenges and build positive, trusting relationships with project-affected Aboriginal communities. For additional guidance for leading practices in community engagement, visit www.pdac.ca/e3Plus to view PDAC's new community engagement guide for explorers.

Representatives from regional industry associations and the PDAC meet to discuss the Duty to Consult and mineral exploration in September 2015.

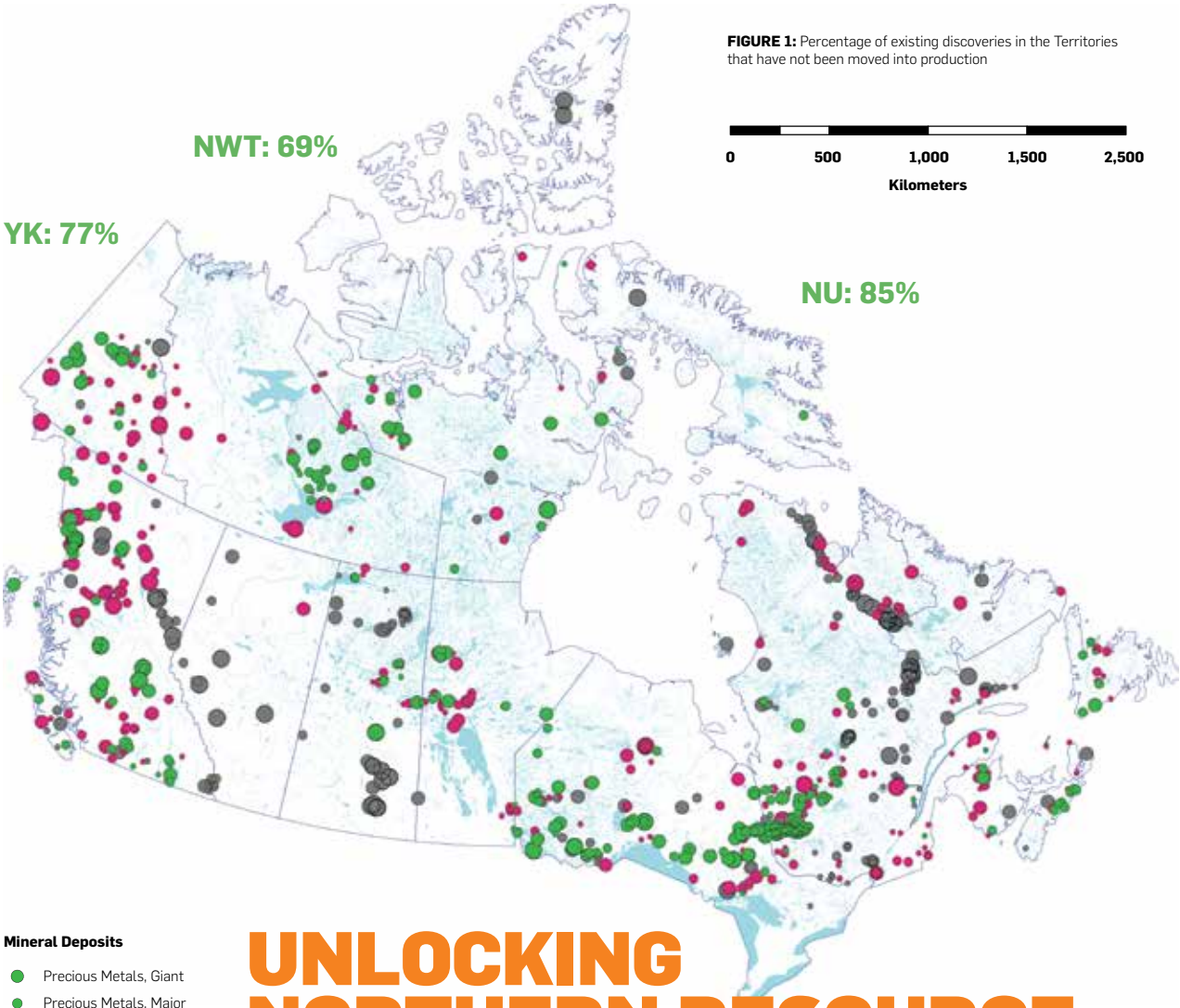


FIGURE 1: Percentage of existing discoveries in the Territories that have not been moved into production

Note: Based on an analysis of 1,079 mineral deposits. For the purposes of this chart, precious metals includes gold, silver, PGEs and diamonds.

Source: Minex Consulting, May 2015

UNLOCKING NORTHERN RESOURCE POTENTIAL:

Fiscal Policy and the Costs of Remote Exploration and Mining

BY NADIM KARA

Mining is the North's economic advantage, with eight geological provinces and very diverse mineralogy. Although it is under-mapped and under-explored, it is currently the primary private-sector driver for the territorial economies, accounting directly for between 18 to 25% of their gross domestic product (GDP). Over the last 80 years, mining has generated over $60 billion in economic value, with taxes and royalties to governments hitting a high of $600 million in 2008 alone. The diamond mines alone have generated over 22,000 person years of employment, and have injected over $4 billion into Aboriginal businesses (33% of total expenditures to build and operate the three mines). They have also injected over $11 billion into northern businesses, including $5 billion to Aboriginal businesses.

Yet mines don't last forever. To sustain the economic opportunities they generate, it's important to sustain grassroots exploration (to make new discoveries) and to move existing discoveries into production. Despite considerable mineral potential, however, a recent PDAC study (undertaken by Minex Consulting) found that a disconcertingly high percentage of mineral discoveries in the territories are not being moved into production (see Figure 1).

While there are many factors that affect a company's decision on whether or not to develop a mineral deposit into a mine (grade, commodity prices, fiscal regime, corporate strategy), costs are a primary driver. Costs, in turn, are largely a function of remoteness. Remoteness is a function of the distance between the project and a transportation corridor or supply centre. Remote deposits cost significantly more to find, develop and mine. This cost premium means that deposits that would likely have been developed had they been discovered in less remote parts of the country remain undeveloped. It also means that to offset the costs of remoteness, companies need to discover better quality deposits with significantly higher grades. In short, due to a pronounced infrastructure deficit, the territories are unable to capitalize on their rich mineral endowment.

If you compare the far south of Canada with the far north (see Figure 2) you will see that while 15% of Canada's land area is below 50 degrees latitude, it has 66% of Canada's past mines and almost half of the country's currently operating mines, as well as over 40% of Canada's undeveloped projects. By contrast, the far North has 40% of Canada's land area (above 60 degrees latitude) but only 9% of Canada's operating mines and 14% of known undeveloped projects. In other words, there are 13 times as many operating mines per unit of area in the far south than there are in the far north (38.2 per 100,000 square kilometres versus 2.9 per 100,000 square kilometres).

For the PDAC, Minex Consulting undertook some sophisticated modeling to assess how many new mines could be developed, all other things being equal, if the cut-off grade to make a project economically viable could be reduced by just 10%. The modeling suggested that this could result in the development of three to five new precious metal mines in the territories (from a pool of 66 undeveloped discoveries), and three to four new base metal mines (from a pool of 60 undeveloped discoveries).

To unlock northern resource potential, the PDAC, along with the Association of Consulting Engineers of Canada, the Mining Association of Canada, the Northwest Territories and Nunavut Chamber of Mines, and the Yukon Chamber of Mines is calling for the adoption of innovative federal fiscal policy tools, including the use of investment tax credits for specified infrastructure developments in remote Canada. In addition, PDAC and its partners are recommending the creation of a federal infrastructure bank focused on stimulating economic activity in remote Canada, modeled along the lines of the Alaska Industrial Development and Export Authority (AIDEA).

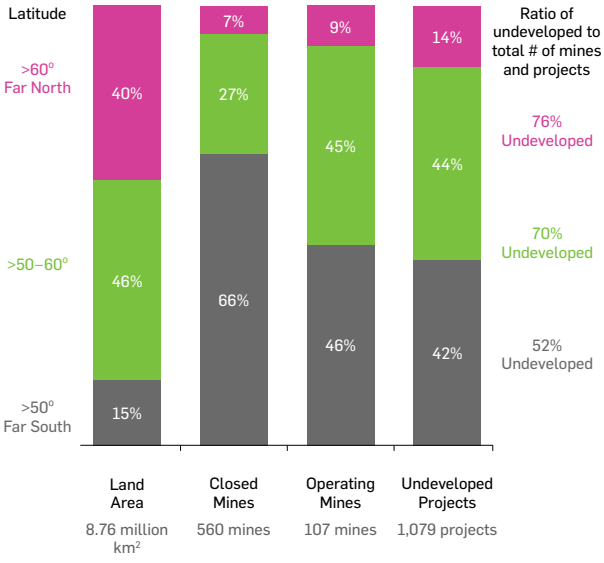
Its mandate would be to provide long-term financing to support construction of the transportation and energy infrastructure necessary to advance existing and new discoveries to the production stage. It could even finance and operate certain projects itself, if it felt that no single company would have an incentive to build the infrastructure necessary to stimulate economic development in a remote region. Financing could take the form of low-interest loans with long repayment periods, bonds (including tax-exempt bonds), as well as equity. It's important to note that PDAC is not proposing a granting agency—financing would only be provided for economically feasible projects.

Although an initial federal investment would be required, the institution would be expected to be self-sustaining in the medium-term. In addition, the government would recover its initial investment through negotiated user fees and a modest rate of return. In Alaska, initial funding provided to AIDEA has been fully recovered, with the State continuing to receive dividends from its initial investment on an annual basis.

Regardless of what fiscal policy tool is deployed, the overall goal would be the same: to unlock northern resource potential to support the sustainable development of Canada's rich mineral endowment, for the benefit of current and future generations. **c**

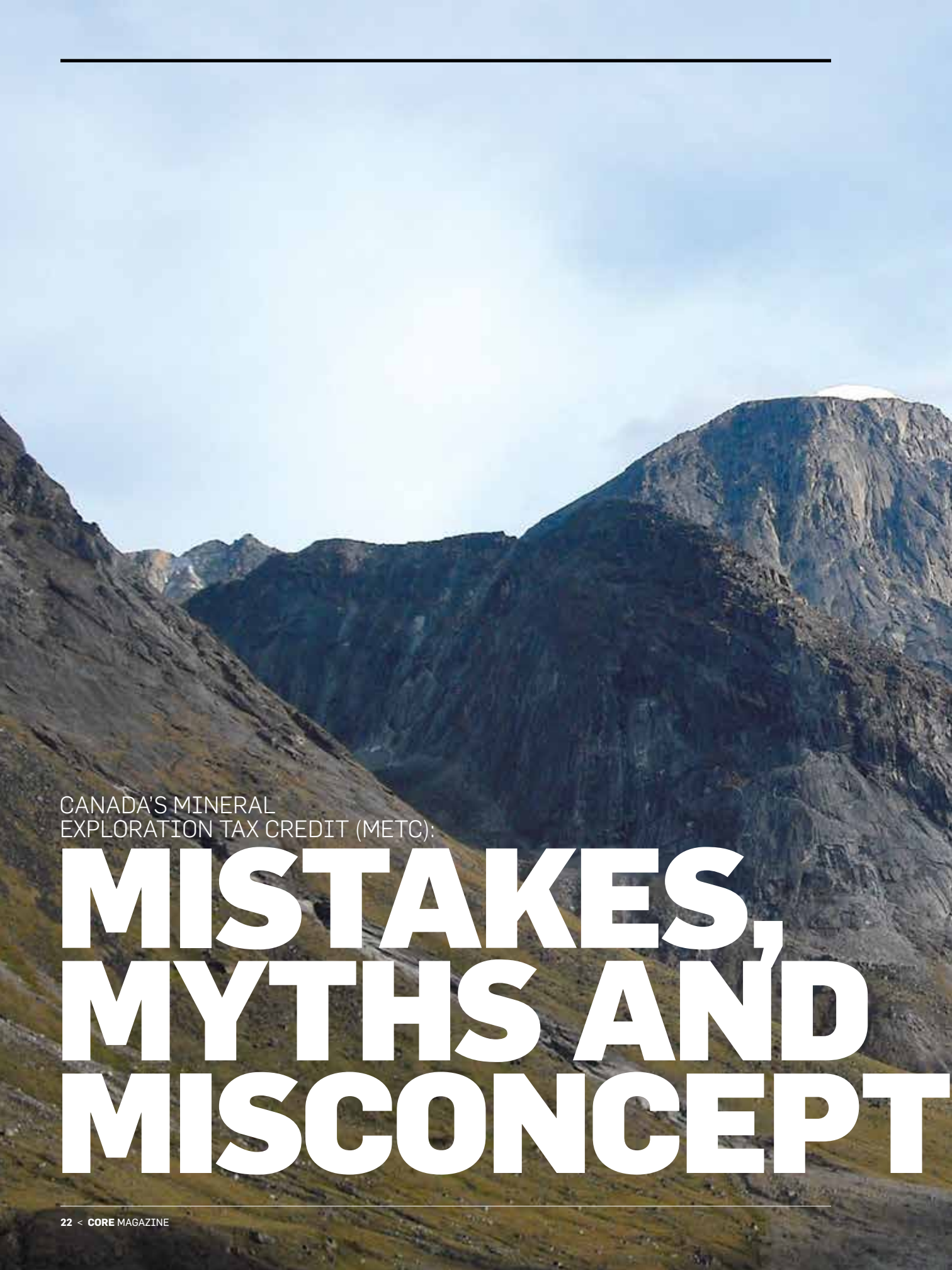
Nadim Kara is the PDAC's Senior Director of Policy & Programs.

FIGURE 2: Relative underdevelopment of territorial mineral resources



Source: Minex Consulting, May 2015

There are 13 times as many operating mines per unit of area in the far south than there are in the far north.



CANADA'S MINERAL EXPLORATION TAX CREDIT (METC):

MISTAKES, MYTHS AND MISCONCEPT

IONS

BY ROBERT CLARK, NADIM KARA & SAMAD UDDIN

Innovation is a hot topic these days. For most, the term conjures up images of geniuses playing foosball in the open-concept offices of a high-tech company. Yet innovation is not just about gizmos and gadgets—it can also arise within the arcane world of taxation policy. One example of this, for which Canada is world renowned, is the 'super flow-through' share system that has revolutionized the ways in which companies finance mineral exploration activities and has made Canada the global hub for mine equity finance.

In addition to being unfamiliar to most Canadians, the system is also subject to a number of myths and misconceptions that occasionally find their way into newspaper and magazine articles. The purpose of this article is to provide a short overview of how the system works, and a mineral exploration industry perspective on some of the most common myths.

SUPER FLOW-THROUGH SHARES—CANADA'S FISCAL POLICY INNOVATION SUCCESS STORY

Unlike businesses that generate revenues (e.g. restaurants or factories), an exploration company most often does not have a source of revenue from which to deduct its expenses. As a result, its legitimate business expenses simply build up, unused, in a 'tax pool.' As a result of a Canadian tax policy innovation, however, exploration companies can pass these unused deductions related to Canadian exploration on to investors by selling them special shares (i.e. they can 'flow them through' to the investor). While the shares issued are ordinarily common shares of the exploration company, what makes them special is that the company and the investor enter into a share subscription agreement, which provides that the exploration company can only use the proceeds from the share subscription to fund qualifying exploration expenses in Canada and the company agrees to renounce the tax benefits related to such exploration back to the investor. These 'flow-through shares' (FTS) are the core of the super flow-through system, creating an incentive by reducing the after-tax cost (to investors) of investing in exploration companies.

In October 2000, during another severe downturn in the mining sector, Jean Chrétien's Liberal Government introduced an early version of what is now known as the Mineral Exploration Tax Credit (METC) to further stimulate investor interest in companies undertaking early-stage exploration, the riskiest stage of the exploration cycle. A number of the provinces added their own tax incentives to attract investment in their particular province. Qualifying exploration expenses renounced to investors in flow-through shares issued by exploration companies to finance early-stage exploration in Canada, are eligible for the METC and potentially associated provincial incentives. Such flow-through shares are commonly known as 'super flow-through' shares.

MYTHS AND MISCONCEPTIONS

The most common and incorrect assumptions (myths) are listed below, followed by the correct information. The best reference for the information in this section is the mining taxation website developed by Natural Resources Canada.

Myth 1: The METC only serves as a tax planning tool for the wealthy investors.
Reality: Without access to capital, there would be no mineral exploration. Without exploration, there would be no new discoveries (the mines of the future). When existing mines close, no new mines would be created, with both local and global impacts (lost employment and business opportunities, shortages of key minerals and metals that make modern life possible). The risk-capital catalyzed by the METC (and the underlying FTS regime) provides the life-blood of the exploration industry, particularly during times when it is difficult to raise capital. Significantly, 100% of the funds raised with super flow-through shares must be spent on mineral exploration in Canada, meaning they generate significant economic stimulus in remote and northern regions.

Although the primary motivation of many investors may be to minimize their taxes, they are still at risk of losing the after-tax cost of their investment if the exploration activity they are financing is unsuccessful and the share price of the exploration company declines. Given the high-risk nature of exploration, there is no guarantee that investors will be able to recover the after-tax cost of their investment. METC simply adjusts the risk-reward ratio associated with mineral exploration, thus impacting the cost-benefit analysis of investors and helping the sector raise risk-tolerant capital.

Myth 2: Only the mineral industry uses flow-through shares.
Reality: The basic flow-through deduction is available to the mineral and mining industry, the oil and gas industry, and the renewable energy and conservation industry. The METC, however, is limited to the mineral industry.

Myth 3: A large volume of money is raised using super flow-through shares near the end of the year, when most tax planning is done. This spikes demand for exploration-related services (e.g. drilling companies) and creates an artificial supply shortage that increases the costs of exploration services.
Reality: This was only true prior to 1996. The "look-back rule" introduced into the Income Tax Act in 1996 fixed this problem. Companies are now able to spend the money they raise until the end of the calendar year immediately following the year in which the money is raised (e.g. money raised in February 2015 can be spent until December 31, 2016).

Myth 4: Flow-through shares are invariably a very poor investment.
Reality: As with any high risk investment, most investors will not see significant increases in the value of the flow-through shares they purchase. The low probability that their shares might go up significantly, however, should a major discovery be made factors into the cost-benefit analysis that these investors make. To partially alleviate the risk, investors often acquire units in a partnership that invests in an array of flow-through share investments rather than investing in a single company.

Myth 5: An METC investor always gets the full 15% tax credit and the federal government recovers none of the tax loss.
Reality: An METC investor has their eligible Canadian Exploration Expenses reduced by any provincial tax credits (by 30% in the case of Manitoba), and has to include the amount of the reduced federal tax credit into income and be taxed on it in the following tax year. In addition, when flow-through shares are sold, the capital gain subject to tax is based on the entire value of the shares (not the difference between the purchase price and the sale price), since flow-through shares are deemed to have a zero adjusted cost base. In addition, several studies have found that provincial enhancements to the flow-through share system have a net-zero cost to provincial treasuries, after factoring in the tax revenues derived from increased exploration expenditures.

Myth 6: The METC does not contribute to achieving federal policy goals.
Reality: In their 1994 evaluation report on flow-through shares, Finance Canada stated that: "*Over the period 1983-1991 flow-through shares were generally relevant, effective and cost effective in meeting the federal government's policy objectives of encouraging exploration in Canada, stimulating equity-based investments in mining and petroleum companies and assisting junior exploration companies.*" The METC simply enhances the flow-through share system, and there is no reason to think that things are different today.

It's also important to clarify what policy goals of the federal government are being assessed. Supporting exploration in remote and northern Canada supports several pillars in the Government of Canada's Northern Strategy, for example, while also generating economic opportunities for Aboriginal people across the country. Companies that financed their exploration activity using flow-through shares have made significant discoveries over the last few decades, such as the Meadowbank mine in Nunavut. The economic activity generated by mines such as this can arguably be said to more than offset the costs associated with the METC.

Myth 7: There is no evidence that the METC induces increased exploration activity over and above what is stimulated by commodity prices.
Reality: Commodity prices are indeed one of the main drivers of mineral exploration. It has been demonstrated, however, that FTS financing as a proportion of total equity financing increases when commodity prices are low and it is difficult to raise high risk capital. In 2007, when financing was readily available, FTS accounted for only 25% of financing for exploration stage activities. During the recent downturn however (2012-2014), FTS accounted for 72% of exploration stage financing, highlighting its importance as an incentive attracting capital to the riskiest stage of the mining cycle. **c**

Robert Clark is a volunteer on the PDAC's Tax Committee and a former Director General Mine Tax Policy, Natural Resources Canada. **Samad Uddin** is the PDAC's Director of Capital Markets. **Nadim Kara** is the PDAC's Senior Director of Policy & Programs.

“WITHOUT EXPLORATION, THERE WOULD BE NO NEW DISCOVERIES (THE MINES OF THE FUTURE).”

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